

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

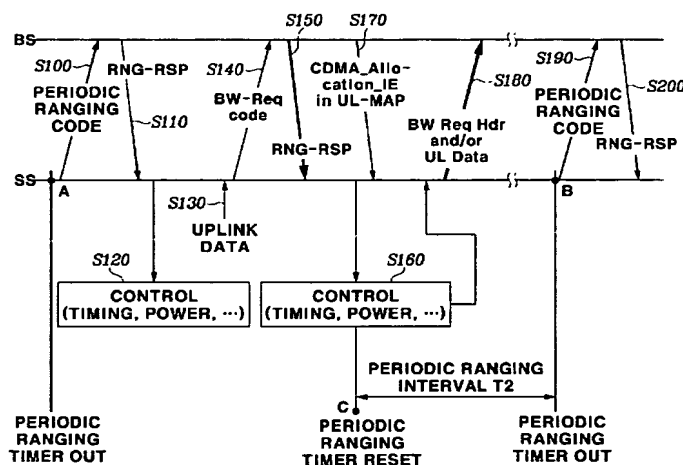
PCT

(10) International Publication Number
WO 2005/040960 A2

- (51) International Patent Classification⁷: **G06F**
- (21) International Application Number:
PCT/KR2004/002731
- (22) International Filing Date: 27 October 2004 (27.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10-2003-0075835 29 October 2003 (29.10.2003) KR
10-2004-0035207 18 May 2004 (18.05.2004) KR
- (71) Applicants (*for all designated States except US*): Electronics and Telecommunications Research Institute [KR/KR]; 161 Gajeong-dong, Yuseong-gu, Daejeon 305-350 (KR). **SAMSUNG ELECTRONICS CO., LTD.** [KR/KR]; 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR). **KT Corporation** [KR/KR]; 206 Jungja-dong, Bundang-gu, Seongnam-city, Gyeonggi-do 463-711 (KR). **SK Telecom Co., Ltd.** [KR/KR]; 99 Seorin-dong, Jongro-gu, Seoul 110-110 (KR). **KTFREETEL CO., LTD.** [KR/KR]; 890-20 Daechi-dong, Gangnam-gu, Seoul 135-280 (KR). **HANARO TELECOM, INC.** [KR/KR]; Shindongah Fire & Marine Insurance Building, 43 Taepyeongno 2-ga, Jung-gu, Seoul 100-733 (KR).
- (72) Inventors; and
(75) Inventors/Applicants (*for US only*): **YOON, Chul-Sik** [KR/KR]; Dawoo Topia Bldg., 1208, Dunsan-dong, Seo-gu, Daejeon-city, 302-120 (KR). **YU, Chang-Wahn** [KR/KR]; Chungsol Apt. 104-1101, Songgang-dong, Yuseong-gu, Daejeon-City 305-752 (KR). **YEO, Kun-Min** [KR/KR]; Kumyong-Heights 403, Sinsong-dong, 136-1, Yuseong-gu, Daejeon-City 305-720 (KR). **RYU, Byung-Han** [KR/KR]; Hanvit Apt. 118-604, Eoeun-dong, Yuseong-gu, Daejeon-City 305-755 (KR).
- (74) Agent: **YOU ME PATENT AND LAW FIRM**; Seolim Bldg., 649-10 Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,

[Continued on next page]

(54) Title: METHOD FOR PREAMBLE-BASED BANDWIDTH REQUEST IN WIRELESS PORTABLE INTERNET SYSTEM



(57) Abstract: Disclosed is a method for a preamble-based bandwidth request. The present invention enables state control of a subscriber station based on the latest environment in a portable Internet system requesting a bandwidth using a preamble, and hence allows a subsequent more efficient transmission of user data. In addition, the present invention provides information for discrimination of the subscriber station transmitting the preamble as well as state control information of the subscriber station to the base station during a preamble-based bandwidth request by the subscriber station, and enables the base station to discriminate the subscriber station in the next time of data transmission with the subscriber station.



MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.